

WHAT IS CLAIMED IS:

1. A packaging bag comprising:

a main bag body made of plastic film material through a main bag body formation process, said main bag body having an opening and a plurality of heat sealed portions; and

a framework member disposed in said main bag body, said framework member being joined to said main bag body prior to completion of said main bag body formation process, said framework member being foldable/unfoldable together with said main bag body, to enable said framework member and said main bag body to be shifted between a generally flat collapsed state and an expanded state.

2. The bag as claimed in Claim 1, further comprising:

a linear fastener provided on said opening of said main bag body.

3. The bag as claimed in Claim 1 or 2, wherein:

said main bag body has a rectangular shape in a generally flat collapsed state, said main bag body being provided on opposite side edges thereof with a pair of heat-sealed portions.

4. The bag as claimed in Claim 3, wherein:

said framework member comprises a pair of opposite reinforcing sections, each of said reinforcing sections having a rectangular shape having first pair of opposite side edges and second pair of opposite side edges, said first pair of opposite side edges being embedded in said pair of heat-sealed portions.

5. The bag as claimed in Claim 4, wherein:

said second pair of opposite side edges is bonded to said main bag body at other regions than said pair of heat-sealed portions.

6. The bag as claimed in Claim 3, wherein:

said framework member comprises a pair of opposite reinforcing sections, each of said reinforcing sections having a rectangular shape having first pair of opposite side edges and second pair of opposite side edges, said pair of opposite side edges and said second pair of opposite side edges being thermally bonded to said main bag body at other regions than said pair of heat-sealed portions.

7. The bag as claimed in Claim 3, wherein:

said framework member comprises a sleeve.

8. A method for manufacturing a packaging bag, comprising the steps of:

(a) continuously feeding a single strip of plastic film material for a main bag body in a longitudinal direction, said single strip having opposite half portions between which a longitudinal central line of said single strip exists;

(b) continuously feeding a pair of strips of thin sheet material for a framework member to place said pair of strips for the framework member on a surface of said single strip for the main bag body in predetermined positions of the respective opposite half portions of the single strip;

(c) bonding said pair of strips for the framework member to said single strip for the main bag body in respective opposite half portions thereof;

(d) folding said single strip for the main bag body with said pair of strips for the framework member in two along said longitudinal central line of said single strip for the main bag body to bring one of said opposite half portions of said single strip for the main bag body close to another of said opposite half portions to prepare a folded composite

strip so that said pair of strips for the framework member are placed in an inside of said folded composite strip;

(e) thermally bonding said folded composite strip in a perpendicular direction to a longitudinal direction thereof by predetermined intervals to form heat-sealed portions; and

(f) cutting each of said heat-sealed portions in two in said perpendicular direction to the longitudinal direction of said folded composite strip,

thereby continuously manufacturing a plurality of packaging bags each of which comprises the main bag body and the framework member, which is foldable/unfoldable together with said main bag body, to enable said framework member and said main bag body to be shifted between a generally flat collapsed state and an expanded state.

9. The method as claimed in Claim 8, further comprising the step of:

(g) prior to said step (b), forming bending facilitation portions on each of said pair of strips for the framework member so as to extend in a perpendicular direction to a feeding direction of said pair of strips for the framework member.

10. The method as claimed in Claim 8, wherein:

said steps (a) to (f) are carried out on a manufacturing line.

11. The method as claimed in Claim 9, wherein:

said steps (a) to (g) are carried out on a manufacturing line.

12. A method for manufacturing a packaging bag, comprising the steps of:

(a) continuously feeding a pair of strips of plastic film material for a main bag body in a longitudinal direction so as to be apart from each

other;

(b) continuously feeding a pair of strips of thin sheet material for a framework member to place said pair of strips for the framework member on respective inner surfaces of said pair of strips for the main bag body in predetermined positions thereof;

(c) bonding said pair of strips for the framework member to said pair of strips for the main bag body, respectively;

(d) bringing one of said pair of strips for the main bag body close to another of said pair of strips for the main bag body so as to cause said pair of strips for the framework member face each other, thus preparing a set of composite strips;

(e) thermally bonding said set of composite strips in a perpendicular direction to a longitudinal direction thereof by predetermined intervals to form side heat-sealed portions;

(f) thermally bonding said set of composite strips on one of longitudinal edges of said set of composite strips to form a bottom heat-sealed portion; and

(g) cutting each of said side heat-sealed portions in two in said perpendicular direction to the longitudinal direction of said set of composite strips,

thereby continuously manufacturing a plurality of packaging bags each of which comprises the main bag body and the framework member, which is foldable/unfoldable together with said main bag body, to enable said framework member and said main bag body to be shifted between a generally flat collapsed state and an expanded state.

13. The method as claimed in Claim 12, further comprising the step of:

(h) prior to said step (b), forming bending facilitation portions on

each of said pair of strips for the framework member so as to extend in a perpendicular direction to a feeding direction of said pair of strips for the framework member.

14. The method as claimed in Claim 12, wherein:

5 said steps (a) to (g) are carried out on a manufacturing line.

15. The method as claimed in Claim 13, wherein:

 said steps (a) to (h) are carried out on a manufacturing line.

16. A method for manufacturing a packaging bag, comprising the steps of:

10 (a) preparing a single piece of plastic film material for a main bag body, said single piece having opposite half portions between which a central line of said single piece exists;

 (b) placing a pair of pieces of thin sheet material for a framework member on a surface of said single piece for the main bag body in
15 predetermined positions of respective opposite half portions of the single piece;

 (c) bonding said pair of pieces for the framework member to said single piece for the main bag body in respective opposite half portions thereof;

20 (d) folding said single piece for the main bag body with said pair of pieces for the framework member in two along said central line of said single piece for the main bag body to bring one of said opposite half portions of said single piece for the main bag body close to another of said opposite half portions to prepare a folded composite piece so that
25 said pair of pieces for the framework member are placed in an inside of said folded composite piece; and

 (e) thermally bonding said folded composite piece on opposite sides

thereof to form heat-sealed portions,
thereby manufacturing the packaging bag, which comprises the main
bag body and the framework member, which is foldable/unfoldable
together with said main bag body, to enable said framework member
5 and said main bag body to be shifted between a generally flat collapsed
state and an expanded state.

17. The method as claimed in Claim 16, further comprising the step
of:

10 (f) prior to said step (b), forming bending facilitation portions on
each of said pair of pieces for the framework member.

18. A method for manufacturing a packaging bag, comprising the
steps of:

(a) placing a pair of pieces of plastic film material for a main bag
body so as to be apart from each other;

15 (b) placing a pair of pieces of thin sheet material for a framework
member on respective inner surfaces of said pair of pieces for the main
bag body in predetermined positions thereof;

(c) bonding said pair of pieces for the framework member to said
pair of pieces for the main bag body, respectively;

20 (d) bringing one of said pair of pieces for the main bag body close to
another of said pair of pieces for the main bag body so as to cause said
pair of pieces for the framework face each other, thus preparing a set of
composite pieces; and

25 (e) thermally bonding said set of composite pieces at opposite side
edges and a bottom edge thereof to form side heat-sealed portions and
a bottom heat-sealed portion;

thereby manufacturing the packaging bags, which comprises the main
bag body and the framework member, which is foldable/unfoldable

together with said main bag body, to enable said framework member and said main bag body to be shifted between a generally flat collapsed state and an expanded state.

19. The method as claimed in Claim 18, further comprising the step
5 of:

(f) prior to said step (b), forming bending facilitation portions on each of said pair of pieces for the framework member.

20. A method for manufacturing a packaging bag, comprising the steps of:

10 (a) placing a pair of pieces of plastic film material for a main bag body so as to be apart from each other;

(b) placing a framework member, which is formed into a sleeve, on respective inner surfaces of said pair of pieces for the main bag body in predetermined positions thereof;

15 (c) bonding said framework member to said pair of pieces for the main bag body, respectively;

(d) bringing one of said pair of pieces for the main bag body close to another of said pair of pieces for the main bag body so as to receive said framework member between said pair of pieces for the main bag
20 body, thus preparing a set of composite pieces; and

(e) thermally bonding said set of composite pieces at opposite side edges and a bottom edge thereof to form side heat-sealed portions and a bottom heat-sealed portion;

thereby manufacturing the packaging bags, which comprises the main
25 bag body and the framework member, which is foldable/unfoldable together with said main bag body, to enable said framework member and said main bag body to be shifted between a generally flat collapsed state and an expanded state.

21. The method as claimed in Claim 20, further comprising the step of:

(f) prior to said step (b), forming bending facilitation portions on said framework member.